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EXAMINER

COMPTON, ERIC B

ART UNIT PAPER NUMBER

3726

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/633,584

Applicant(s)

WEST, TRENT

Examiner

Eric B. Compton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/5/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 19-21 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by GB950127 to Lederrey. Note: U.S. Pat. 3,242,664 is an equivalent to Lederrey.

Regarding claim 1, Lederrey discloses a method of making a jewelry article (a watchcase) which comprises providing an annular body made of a hard material comprising tungsten carbide, with the annular body having at least one external facet, and grinding the at least one external facet to a predetermined shape to provide a pleasing appearance to the jewelry article, with the hard material being long wearing and virtually indestructible during use of the article.

The reference discloses, "The upper surface of piece 30 can be polished in the usual manner, by means of a grinding wheel leaded with a finely divided diamond powder." EPO disclosure.

Note: a watch case may be considered an article or jewelry. See U.S. Pat. 3,719,479, Col.3, line 39-40 (disclosing a similar invention).

Regarding claim 2, the article "can also be given new shapes comprising large polished visible surface areas. The colour of the material consisting of

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sintered tungsten carbide is darker than that of steel, thus giving the watch case according to the invention an original ornamental appearance.” EPO disclosure.

Regarding claim 3, “Only diamond and, in some instances, carborundum are able to scratch such pieces ... [thus] it will keep its appearance during an almost limitless period, even if it is worn in the roughest conditions.” *Id.*

Regarding claim 18, the reference discloses compensating for shrinkage. This is a design detail that Applicant addresses as well.

Regarding claims 19-21, “To form a piece of a material containing tungsten or titanium carbide, an intimate mixture is first prepared, for instances in a ball mill, with a powder of the metal carbide and a powder of a bonding material such as for instance cobalt, the particles of both powders thereby having very small sizes.” EPO disclosure (noting the use of sintered tungsten carbide powder).

Regarding claim 23, as shown in the Figures, the facet may be curved.

3. Claims 1, 3, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. 3,669,695 to Iler et al (“Iler”).

Regarding claim 1, Iler discloses a method of making a jewelry article (a ring, see Col. 6, TABLE) which comprises providing an annular body made of a hard material comprising tungsten carbide (0-70 % vol., Col. 2, lines 25-27), with the annular body (e.g., a ring) having at least one external facet, and grinding the at least one external facet to a predetermined shape to provide a pleasing appearance to the jewelry article, with the hard material being long wearing and virtually indestructible during use of the article.

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"Methods for fabricating such item of jewelry as well as methods for cutting, shaping and ***polishing the dense compositions*** will be apparent to those skilled in the art and are more fully described in the examples." Col. 6, lines 19-22 (emphasis added). "By virtue of their fine grain size and lack of porosity, compositions of this invention can be ***polished to an unusually*** high degree and this polish is not scratched, marred on (sic) dulled in even the roughest conventional use ..." Col. 8, lines 57+ (emphasis added). An embodiment involving a grinding wheel is discussed on Col. 10, lines 60-68.

Regarding claim 17, Iler discloses the jewelry article may be a ring, earring or bracelet. See Col. 6, TABLE.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 9-10, 14, 17, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lederrey in view of the U.S. Pat. 3,837,163 to Fujimori, JP 61-177351 to NIPPON TUNGSTEN, JP 64-008245 to Maruyama et al ("Maruyama"), U.S. Pat. 3,669,695 to Iler et al ("Iler"), and U.S. Pat. 4,740,935 to Goniati (collectively referred to in this action as "the state of the art").

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Fujimori discloses a watch-band made of a hard material comprising tungsten carbide (WC). The band is made by ground and polished to a mirror finish. Col. 2, line 18. The reference discloses:

Watch-bands having a useful life exceeding that of leather have generally been made of stainless steel or silver or gold alloys. Such materials, whether in their natural state or plated with a metal, are nevertheless subject to scratching and abrasion by concrete, dust and the like so that it is difficult, if not impossible, to maintain such watch-bands in a condition in which they have a high lustre. In view of the relative softness of such materials, even in the case of stainless steel, it is impossible to maintain a mirror-finish. The wearer of such a watch-band must therefore resign himself to a decrease in the attractiveness of the watch-band or to relatively frequent refinishing of the watch-band.

Col. 1, lines 4-17.

NIPPON TUNGSTEN discloses a sintered alloy comprising tungsten carbide, e.g. 82%."The alloy is ***used for watch cases, necklaces, and other ornamental parts***, and has a hardness as high as 1100-1300 Hv, good corrosion resistance and brazing ability w.r.t. stainless steel and to Inconel." Derwent Abstract (emphasis added).

Maruyama discloses a hard material composed principally of tungsten carbide. "By the above constitution, the hard alloy having mechanical strength, corrosion resistance, and polishing brightness characteristics well-balancedly at respectively high levels can be obtained. Accordingly, ***this alloy is suitable for watchband, watchcase, etc.***" JPO Abstract (emphasis added).

Iler discloses the invention cited above. Specifically, the reference discloses a hard material comprising tungsten carbide (0-70 % vol., Col. 2, lines 25-27), with the body (e.g., a ring, earring, bracelet, etc.) having at least one

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external facet, and grinding the at least one external facet to a predetermined shape to provide a pleasing appearance to the jewelry article, with the hard material being long wearing and virtually indestructible during use of the article.

Goniart discloses a method for making jewelry, including a sintered hard metal plate of the type of material disclosed in U.S. Pat. 3,837,163, Fujimori, *supra* (disclosing a hard metal watch band including tungsten carbide). Col. 2, line 34. "This invention relates to ***pieces of jewelry such as for instance watchcases, watchbands, bracelets, rings, cuff links, brooches, pendants and the like, which are protected by a sintered hard metal shielding ...***"

Col. 1, lines 11-14 (emphasis added). In the embodiment shown in Figures 2-4, a hard metal plate (22) of the sintered hard metal material, which may be tungsten carbide. Col. 6, lines 10-11. The plate may be machined and provided with facets (31) and may include opening to incorporate gems (29). Col. 6, lines 51-56.

The state of the art teaches that it has been known in the art to form various jewelry articles from a hard material comprising tungsten carbide. The material is known for its attractive luster, high hardness and resistance to scratching. MPEP § 2144.07 provides:

The selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945) (Claims to a printing ink comprising a solvent having the vapor pressure characteristics of butyl carbitol so that the ink would not dry at room temperature but would dry quickly upon heating were held invalid over a reference teaching a printing ink made with a different solvent that was nonvolatile at room temperature but highly volatile when heated in view of an article which taught the desired boiling point and vapor pressure

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characteristics of a solvent for printing inks and a catalog teaching the boiling point and vapor pressure characteristics of butyl carbitol. "Reading a list and selecting a known compound to meet known requirements is no more ingenious than selecting the last piece to put in the last opening in a jig-saw puzzle." 325 U.S. at 335, 65 USPQ at 301.).

See also *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960) (selection of a known plastic to make a container of a type made of plastics prior to the invention was held to be obvious); *Ryco, Inc. v. Ag-Bag Corp.*, 857 F.2d 1418, 8 USPQ2d 1323 (Fed. Cir. 1988) (Claimed agricultural bagging machine, which differed from a prior art machine only in that the brake means were hydraulically operated rather than mechanically operated, was held to be obvious over the prior art machine in view of references which disclosed hydraulic brakes for performing the same function, albeit in a different environment.).

Thus, regarding claim 17, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have formed a finger ring, earring, bracelet, or any other jewelry article by the method of Lederrey, since it has been held that it is *prima facie* obvious to select a known material based on its suitability for its intended use.

Lederrey discloses the invention cited above. However, the reference does not disclose the weight percent of the hard material or density.

Regarding claims 9 and 22, "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). Regarding density, Iler noted with respect to Lederrey that this method produced articles of jewelry that had a very high density and thus were heavy. Col. 1, lines 39-40. Regarding the concentration of tungsten carbide, Maruyama, Table 1, discloses embodiments having a concentration of tungsten carbide in excess of 85% weight percent.

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Regarding claims 10 and 14, Gogniat discloses forming a tungsten carbide plate member. The plate member was machine to include recesses for (pre-cut) gems. See Figure 4.

6. Claims 4-8 and 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lederrey in view of the state of the art and further in view of U.S. Pat. 5,003,678 to Oganeyan; U.S. Pat 1,863,618 to Brogan; Aus. Pat. 208,883 to Hawke; and information from "Titanium Era" Website.

Lederrey and the state of the art discloses forming jewelry articles from a hard material including tungsten carbide. Gogniat, cited as the state of art, disclosed forming a tungsten carbide plate member for a watch. The plate was machined to include recesses for gems.

However, these references do not disclose the ring forming steps as claimed.

Oganeyan discloses methods for forming a ring by machining a groove into a ring and forming facets to hold gems and other precious gems.

Brogan discloses methods for forming rings comprising machining a groove into ring and forming facets to hold gems and other precious gems.

Hawke disclose method for forming rings having inserts/inlays (8) of a precious metal.

Information from the "Titanium Era" Website, discloses a number of rings having various designs, including multiple facets, and inserts/inlays of a precious metal.

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Regarding claims 4-8, and 10-16, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have formed the ring disclosed by Lederrey in view of the state of the art, having multiple facets and included gems or inlays, in light of Oganeyan, Brogran, Hawke, and "Titanium Era," since these designs for rings are well known in the jewelry art. Furthermore, it has been held that matters relating to ornamentation only which have no mechanical function cannot be relied upon to patentably distinguish the claimed invention from the prior art. *In re Seid*, 161 F.2d 229, 73 USPQ 431 (CCPA 1947).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric B. Compton whose telephone number is (703) 305-0240. The examiner can normally be reached on M-F, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter B. Vo can be reached on (703) 308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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Patent Examiner
A/U 3726